

Key Learning of this Unit: Pulleys

A pulley is a simple machine that people used to gain an advantage, such as making work easier.

Unit Essential Question:

How can a pulley system be set up to gain the greatest advantage?

Instructional Tools:

Pulleys, science stories, ropes, pulley wheels, loads, duct tape, support system, spring scale, rubber bands, white paper,

Concept:

One-Pulley
Systems

Lesson EQ:

How can pulley be used to lift a load?

Lesson EQ:

What advantages can different single- pulley systems give to the user?

Lesson EQ:

Vocabulary:

Single-movable pulley, Single-fixed pulley, mechanical advantage, directional advantage, pulley, simple machine,

Concept:

Two-Pulley
Systems

Lesson EQ:

What advantages do you gain by using two pulleys at the same time?

Lesson EQ:

How can you predict the amount of effort needed to lift the load with a pulley system?

Lesson EQ:

What is the relationship between the mechanical advantage and the distance the load and effort move?

Vocabulary:

Single-fixed/single-movable pulleys (effort up/ effort down)

Concept:

Lesson EQ:

Lesson EQ:

Lesson EQ:

Vocabulary: